



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

## Taking a Water Sample

2020 Small Systems Training

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## Sample Site Plans

- Sample Site Plans
  - Bacteriological
  - Disinfection By-Products
  - Lead and Copper



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MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY  
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION

**SAMPLE SITING PLAN - BACTERIOLOGICAL**

*Issued under authority of 1976 PA 399 and Administrative Rules, as amended. Administrative Rule R 325.10704c requires a water supply to monitor for total coliform bacteria according to a written sample siting plan subject to department review and revision. This form is provided as a convenience to the water supply for developing the plan.*

**Water Supply Information**

Supply Name	WSSN
Address	Population Served
City, State, Zip	County

**Contacts – Water Supply**

/		( )
Name/Title	E-mail	Telephone
/		( )
Name/Title	E-mail	Telephone
/		( )
Name/Title	E-mail	Telephone

**Contacts – EGLE and Other**

EGLE Revised Total Coliform Rule Analyst Name	E-mail	( ) Telephone
EGLE Drinking Water District Analyst Name	E-mail	( ) Telephone
EGLE Drinking Water District Engineer Name	E-mail	( ) Telephone
<b>Pollution Emergency Alerting System (PEAS) Information</b>		<b>1-800-292-4706</b>
Call PEAS number if unable to contact EGLE staff.		Telephone
Local Official	E-mail	( ) Telephone
Local Official	E-mail	( ) Telephone
Health Department	E-mail	( ) Telephone

**Public Notification**

Means of Public Notification		
Newspaper Name and City	E-mail	( ) Telephone
Radio/Television Name and Address or City	E-mail	( ) Telephone

**This Cover Sheet Updated**

Date
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**Bacteriological Sampling Requirements** Collect at least \_\_\_\_\_ routine samples per month from the routine sites listed below. For a chlorinated system, measure and record the chlorine residual at the same time and place as every routine and repeat sample collected. Results from all routine and repeat sites are used to determine compliance. Results from other sites might not be allowed for compliance. EGLE recommends a site map. Map enclosed: Yes ☐ No ☐

**Distribution System Sample Sites**

Dist. Site #	Routine Site Address	# of Samples per Month	Upstream Site Address*	Downstream Site Address*	Site Code of All Sources that Serve the Routine Site * (Not required for surface water supplies)
1					
2					
3					
4					
5					

\* When a routine sample is positive for total coliform or *E. coli*, collect samples from repeat sites in the distribution system. Groundwater supplies must also sample all raw water sources (wells) for each positive routine sample result. With EGLE approval, source water collection may be limited to those wells that were in use at any time within the 72-hour period prior to the collection of the routine positive sample. Supplies that purchase their water must notify their water supplier within 24 hours of a positive routine sample result. Surface water supplies are not required to sample their source water.

**Source Sample Sites\* and Other Non-Distribution Sites** (raw water, common header)

Site Code	Well # or Other Designation	Location or Address

Comments:

\* All sources **MUST** be sampled if a routine distribution sample is positive for total coliform or *E. coli*.

**Laboratory Certified to Analyze Bacteriological Samples** - for more labs certified in total coliform, visit <http://www.michigan.gov/deqlab>.

Laboratory Name - Primary	Address, City, State, Zip	E-mail	( ) Telephone
Laboratory Name - Alternate	Address, City, State, Zip	E-mail	( ) Telephone

**Plan Completed/Updated and Reviewed**

Name and Signature	Date Completed
WSSN	County
Water Supply Name	

<b>For EGLE Use Only</b>	
Sample site plan reviewed by EGLE.	
<input type="checkbox"/> No revisions necessary.	EGLE Staff:
<input type="checkbox"/> Revisions necessary as indicated.	Date:
Contact EGLE with questions.	



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
OFFICE OF DRINKING WATER AND MUNICIPAL ASSISTANCE

## MONITORING PLAN FOR COMMUNITY WATER SUPPLIES – DISINFECTANTS AND DISINFECTION BYPRODUCTS (DDBP)

Issued under authority of 1976 PA 399 and Administrative Rules, as amended. Administrative Rule R 325.10719i requires a water supply to develop a monitoring plan. This form is provided as a convenience to the water supply to develop the plan.

### Water Supply Information

Supply Name	WSSN
Address	Population Served
City, State, Zip	County

### Contacts – Water Supply

Name and Title	E-mail	( ) Telephone
Name and Title	E-mail	( ) Telephone
Name and Title	E-mail	( ) Telephone

### Contacts – DEQ and Other

DEQ Drinking Water Analyst Name	E-mail	( ) Telephone
DEQ Drinking Water District Engineer Name	E-mail	( ) Telephone
Pollution Emergency Alerting System Information (PEAS)		1-800-292-4706
Call PEAS number if unable to contact DEQ staff.		Telephone
Local Official	E-mail	( ) Telephone
Local Official	E-mail	( ) Telephone
Health Department	E-mail	( ) Telephone

### Public Notification

Means of Public Notification		
Newspaper Name and City	E-mail	( ) Telephone
Radio/Television Name and Address or City	E-mail	( ) Telephone

### Laboratory

Primary Laboratory Name	E-mail	( ) Telephone
Primary Lab Address, City, State, Zip		
Alternate Laboratory Name	E-mail	( ) Telephone
Alternate Lab Address, City, State, Zip		

DDBPR Monitoring Plan for WSSN \_\_\_\_\_(continued)

**Measure Chlorine Residual** (under normal operating conditions)

- ☐ Check if this supply serves water disinfected with chlorine or chloramines. The residual disinfectant level must be measured at the same time and the same location as each total coliform compliance sample (includes all routine AND repeat total coliform samples).

**Monitor Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5)**

TTHM and HAA5 Sample Sites and Monitoring Frequency

Site Code <sup>1</sup> (DBP1, DBP2, etc)	Sample Site Address	Rationale for Selection	ROUTINE Monitoring Sample Every <input type="checkbox"/> 3rd Month <input type="checkbox"/> 1 Year	REDUCED Monitoring <sup>2</sup> Sample Every <input type="checkbox"/> 3rd Month <input type="checkbox"/> 1 Year <input type="checkbox"/> 3rd Year
DBP__			<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5
DBP__			<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5
DBP__			<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5
DBP__			<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5
DBP__			<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5
DBP__			<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5	<input type="checkbox"/> TTHM <input type="checkbox"/> HAA5

<sup>1</sup> Each Site Code is unique to a Sample Site Address. Contact the DEQ if a sample site is no longer available. The DEQ will help you select a new Sample Site Address and establish a new Site Code.

<sup>2</sup> Reduced monitoring can only be established after certain criteria are met. Complete this column only after consultation with the DEQ. Monitor according to the routine schedule unless a reduced schedule has been approved by the DEQ.

Peak historic month: \_\_\_\_\_ (month of highest byproduct formation, based on past results)

When monitoring:

- Every 1 year or every 3rd year, monitor during the peak historic month.
- Every 3rd month, check the group below that contains the peak historic month. Monitor during each of the months in the group.
 

<input type="checkbox"/> January, April, July, and October	(1 <sup>st</sup> month of each calendar quarter)
<input type="checkbox"/> February, May, August, and November	(2 <sup>nd</sup> month of each calendar quarter)
<input type="checkbox"/> March, June, September, and December	(3 <sup>rd</sup> month of each calendar quarter)

**Monitor Bromate** (under normal operating conditions)

- ☐ Check if this supply adds ozone. This supply must collect 1 sample per month for bromate at the entry point (plant tap) of each treatment plant that uses ozone. The DEQ may reduce frequency from monthly to quarterly if the bromate running annual average (RAA) is  $\leq 0.0025$  mg/L (milligrams per liter) (2.5 parts per billion [ppb]).

**Schematic (optional)**

- ☐ Check if a schematic is attached showing the sample sites in this monitoring plan.



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
DRINKING WATER AND MUNICIPAL ASSISTANCE DIVISION  
**SAMPLING PLAN – LEAD AND COPPER**

*Issued under authority of the Michigan Safe Drinking Water Act, 1976 PA 399, and Administrative Rules, as amended. Administrative Rule R 325.10710a requires a water supply to monitor for lead and copper according to a pool of targeted sampling sites in accordance with designated site selection criteria. Complete and submit this form to MDEQ.*

### Water Supply Information

Supply Name	WSSN
Address	County
City, State, Zip	Population Served

### Contacts – Water Supply

Name and Title	E-mail	( ) Telephone
Name and Title	E-mail	( ) Telephone
Name and Title	E-mail	( ) Telephone

### Contacts – DEQ and Other

Ms. Jeni Bolt Lead and Copper Rule Specialist (517) 331-5161; boltj@michigan.gov	Ms. Heather Jackson Lead and Copper Rule Analyst (517) 242-3997; jacksonh@michigan.gov	Mr. Brandon Onan, P.E., Corrosion Control Engineer (616) 307-6736; onanb@michigan.gov
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#### MDEQ Lead and Copper Contacts

MDEQ Drinking Water District Analyst Name	E-mail	( ) Telephone
MDEQ Drinking Water District Engineer Name	E-mail	( ) Telephone
Pollution Emergency Alerting System Information (PEAS) Call PEAS number if unable to contact MDEQ staff.		(800) 292-4706 Telephone
Local Official	E-mail	( ) Telephone
Local Official	E-mail	( ) Telephone
Health Department	E-mail	( ) Telephone

### Public Advisory, Education, and Notification

Means of Distributing Information to the Public		
Newspaper Name and City	E-mail	( ) Telephone
Radio/Television Name and Address or City	E-mail	( ) Telephone

### Date Cover Sheet Updated

# MICHIGAN COMMUNITY WATER SUPPLY LEAD AND COPPER TAP SAMPLING POOL

>>> REVIEW INSTRUCTIONS ON PAGES 4 AND 5 BEFORE COMPLETING FORM BELOW <<<

WSSN: \_\_\_\_\_ Supply Name: \_\_\_\_\_ Page \_\_\_\_ of \_\_\_\_

Standard Number of Sites Required: \_\_\_\_\_ Reduced Number of Sites Required: \_\_\_\_\_

Site No.	Address	Tier Level	Category	Structure Type	Service Line Material	Interior Plumbing Material	Site Validation Method
00	Ex: 0000 Any Street – Any Town, MI	1	A	SFR	L	C	Visual
01							
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Use next page to record additional sampling sites.

Plan Completed By

\_\_\_\_\_  
Name  
\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature  
\_\_\_\_\_  
Date

For MDEQ Use Only	
<input type="checkbox"/> Plan Accepted	
<input type="checkbox"/> Revisions necessary as indicated	
Staff: _____	Date: _____

## Sampling

- Partial Chemistry
  - Hold Times/Thermal Preservation
- Lead/Copper
  - Units (ppb/ppm)
  - Lab #
  - Preservation
  - Bottles (Size/Type/1<sup>st</sup> and 5<sup>th</sup> L)
  - Sample Site Plans



7

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## Sampling

- Radiological
  - Certified Labs
  - Tritium Certified Labs
- Disinfection By-Products (HAA5/TTHM)
  - Thermal/Chemical Preservation
  - Sample Site Plans (Specific Address)
- VOC/SOC
  - Thermal/Chemical Preservation
  - Head Space



8

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## Sampling

- Water Quality Parameters
  - Chloride/Sulfate (New)
  - Silica (Only if Using for Corrosion Control)
  - Temp/pH
- Bacteriological
  - Hold Times
  - Sample Site Plans (Specific Address)
  - Type of Sample
  - Notification of Positives



9

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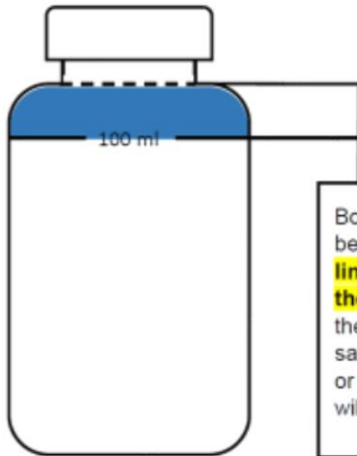
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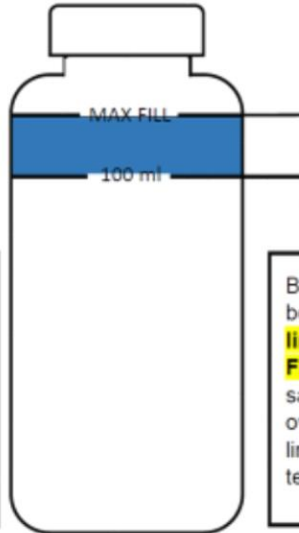
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### Old Unit 30



Bottles must be filled between the **100 ml line and the base of the neck**, shown by the dotted line. Any samples received over or under these lines will not be tested.

### New Unit 30 bottle



Bottles must be filled between the **100 ml line and the MAX FILL line**. Any samples received over or under these lines will not be tested.

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10

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**Environment, Great Lakes, and Energy**

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11

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